



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF34-3A BYPASS RATIO: 6.3  
 UNIQUE ID NUMBER: 1GE034 PRESSURE RATIO ( $\pi_{00}$ ): 19.7  
 COMBUSTOR: LEC II  
 ENGINE TYPE: TF RATED THRUST ( $F_{00}$ ) (kN): 41.0

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>00</sub> (g/kN) or SN	11.8	100.4	32.2	28.2
AS % OF ORIGINAL LIMIT	60.0	85.1	40.6	93.3
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			50.7	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			53.2	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			54.5	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			58.9	

### DATA STATUS

- PRE-REGULATION  
 x CERTIFICATION  
 - REVISED (SEE REMARKS)

### TEST ENGINE STATUS

x NEWLY MANUFACTURED ENGINES  
 - DEDICATED ENGINES TO PRODUCTION STANDARD  
 - OTHER (SEE REMARKS)

### EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE  
 (ANNEX 16 VOLUME II)

### CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)  
 x OUT OF PRODUCTION (DATE: - )  
 - OUT OF SERVICE (DATE: - )

### MEASURED DATA

MODE	POWER SETTING (%F <sub>00</sub> )	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO <sub>x</sub>	
TAKE-OFF	100	0.7	0.407	0.06	0.00	11.61	21.9
CLIMB OUT	85	2.2	0.334	0.06	0.00	10.14	9.2
APPROACH	30	4.0	0.119	0.13	1.90	6.86	3.1
IDLE	7	26.0	0.050	3.95	42.60	3.82	3.1
LTO TOTAL FUEL (kg) or EMISSIONS (g)			167	313	3350	1137	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D <sub>p</sub> /F <sub>00</sub> (g/kN) or AVERAGE SN (MAX)				7.6	81.8	27.8	21.9
SIGMA (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				0.2	3.3	1.6	0.3
RANGE (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)				7.41-7.78	79.2-85.5	26-29	21.7-22.2

### ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS  
 STAGE BLEED 0 (% CORE FLOW) AT - POWER SETTINGS

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	101.6-102.9
TEMPERATURE (K)	275.5-281.1
ABS HUMIDITY (kg/kg)	0.0016-0.0039

### FUEL

SPEC	JP-5
H/C	1.92
AROM (%)	20.3

MANUFACTURER: General Electric Company  
 TEST ORGANIZATION: General Electric Company  
 TEST LOCATION: Lynn Cell 121  
 TEST DATES: 21/03/1991-23/03/1991

### NO<sub>x</sub> REGULATION PARAGRAPH

	2.3.2 c) (CAEP/4)
	2.3.2 d) (CAEP/6)
x	2.3.2 e) (CAEP/8)

### REMARKS

1. Ref GE Report R91AEB051 (1/92 rev).
2. Engine S/N 807-005.
3. LEC II combustor.

Compliance with Fuel Venting requirements: -

('x' if complies, 'PR' if pre-regulation, '-' if information is not available)